

REMARKS

Independent claim 1 has been amended to more clearly define the fit and functionality of said rod within said tube. The rectangular cross section rod fits loosely within the round cavity of the tube and the rectangular section rod is substantially coextensive with the length of said tube.

Dependent claim 10 has been amended to clearly define a soft sleeve covering at least nearly the entire length of the tube.

Dependent claim 14 has been amended to more clearly reflect the fact that when the tube is bent, the rectangular shaped rod fitting loosely within the tube will orient itself in response to forces applied to edges of the rod and the flexible elongated device will bend around the major axis of the rectangular rod without the flexible elongated device having to be repositioned by the user.

Dependent claim 16 has been amended to more clearly define the function of the lubricant in the interior of the tube.

New claim 17 is added to define the characteristics of the flexible elongated tube which deforms but does not kink along its entire length when bent to at least near a semicircular shape.

New claim 18 adds an additional rod of round cross section as shown in Figure 10.

Claims 1-9 were rejected under *U.S.C.* 102(b) as being anticipated by Brown. Further claims 1-9 were rejected under *U.S.C.* 103(a) as being unpatentable over Brown. Applicant is the inventor of both of the referenced Brown patents. Regarding the loose fitting rod, the Examiner refers to col.7, line 9. Brown ('226) states in col 7, lines 8 thru 12 "In a preferred embodiment the outer protective sheath has a minimum spacing of 0.075 inches away from the outer periphery 16 of the filament matrix means so as to insure safe encapsulation of the matrix

means within the sheath." The 0.075 inches away from the outer periphery is not meant to suggest that the filament matrix means fits loosely within the extruded outer protective sheathing. Referring to Fig. 2, the 0.075 inch minimum distance refers to the minimum amount of extruded material located between the position of intersection of the outer periphery of the extruded sheathing 19 with the major axis line 23 and the outer periphery 16 of the width dimension 24 of the filament matrix means. This minimum amount of material is required to insure safe encapsulation during the extrusion process of the matrix means. Further, in the extrusion process of encapsulating the rectangular shape of filament matrix means, the extruded material 19 is in direct contact with the outer periphery of the filament matrix means 16. There is no space between the outer periphery of the filament matrix means and the interior surface of the extruded material. This is reinforced by column 6, lines 65 – 67, where a means is given for chemically bonding the immediate interior surface of the extruded sheathing material to the outer periphery 16 of the filament matrix means. This chemical bonding can only occur if the extruded sheathing is in direct contact with the outer surface of the filament matrix means during the extrusion process. And this is further substantiated by Fig 2 where it is shown that the interior of the extruded sheathing is touching the outer periphery of the filament matrix means. Therefore, Brown ('226) teaches a 'tight and confining' fit of the filament matrix means to the sheathing material. Applicant teaches a loose fitting relationship which is necessary for the filament matrix means to be able to orient itself to bend about its major axis within the flexible tube, as is claimed in claim 14, when forces are applied to each end of the tube. Due to the 'tight or confining' fit of the filament matrix means and the sheathing of Brown ('226), that flexible device must be positioned in the user's hand in such a manner that the flexible device will bend about the major axis. In using the exercise device of this application, the user can position his or

her hands anywhere on the surface of the flexible device, and when the user exerts a bending force to each end of the flexible device, the filament matrix means which is inside the flexible tube will orient itself, due to the pressure of the interior wall of the flexible tube against the edges of the filament matrix means, so that the pultruded rectangular rod bends around its major axis.

Applicant solicits allowance of claim 1 and claims 2 thru 17 depending from claim 1.

Claims 10-15 were rejected as being unpatentable over Brown ('226) in view of Truchelut. The Examiner indicated that it would have been obvious to one of ordinary skill in the art to provide padding on the device of Brown ('226) for the purpose of allowing the user to place the device against the body and to enhance user comfort, in view of Truchelut. Truchelut clearly teaches away from the claims of this application where applicant uses a pultruded fiberglass composite which has a constant cross-section and is straight over its entire length. Truchelut disclose making a flexible elongated fiberglass device having a 'variable diameter' (larger diameter in the center than at the ends) with one of the two ends being bowed and the other straight. The function of Brown's ('226) outer protective extruded sheath is for comfort and to provide for a safe exercise device by encasing the entire length the fiberglass bar to contain glass fibers that might rupture from the surface of the fiberglass bar during repeated bending and to provide a means for attachment of hand grips over this outer protective sheath. Truchelut applies the 'padding' only to the center part of the fiberglass flexible device leaving a portion of the fiberglass flexible rod exposed with separate hand grip means located toward the ends of the fiberglass flexible bar. A person of ordinary skill in the art would not have been motivated by Truchelut to apply a sheathing (or padding) over the Brown ('226) apparatus because the 'soft sleeve covering' of (claim 10) is not only for comfort but serves as a means for

insuring sure gripping when bending the flexible device and as such is applied the entire length of tubing except for the end caps which are placed over each end of the tubing so the fiberglass bars which are loose fitting inside of the flexible tubing do not fall out. Further, the device of Brown ('226), as referenced by the examiner, already has the extruded outer sheathing which serves, not only to protect the surface of the fiberglass rod, but for comfort. So one would not have been led to apply further selected padded means over the extruded outer sheathing of Brown ('226).

Claims 11-14 are rejected by the examiner as being unpatentable over Brown ('226) in view of Cho. The teachings of Cho teach away from applicant's teachings in that Cho teaches the making of a circular device made by the concentric adjacent windings of a single long and narrow strip of spring steel in which the two ends are fixed by a secure fitting. A person of ordinary skill in the art would not have been motivated by the teachings of Cho to cut up this circular device to produce three discrete pieces of the spring steel and to place them adjacent to each other and then put them (unrestrained) into a flexible tube and place closures onto the ends of the tubes.

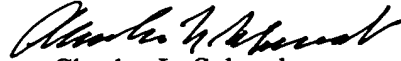
In regard to claim 14, the Examiner states that the claimed functionality of the device inherently causes an applied pressure to the edges of the rod. In applicants device, the user is not aware of the position of the rod inside the tube, due to the rod fitting loosely inside the flexible tube, as the user grasps the ends of the flexible elongated device and starts to bend it in performing the various exercise routines. The filament matrix means (or rod) of Brown ('226) is fixed inside the outer protective sheath which is formed from an elastomeric material attached to the filament matrix means along its length and around the entire circumference of the filament matrix means and unable to move (or orient itself) so that it

will bend about its major axis without the user having previously positioned the hand such that rectangular filament matrix means is positioned correctly for bending. This is the reason for locating a 'marking means, 20' on the exterior of the protective sheath of Brown ('226) to not only encourage the user to bend the apparatus in only one direction but to give the user a visual indicator of the position of the rectangular filament matrix means within the protective sheath. Therefore, the teachings of both Brown ('226) and Cho do not suggest the applicant's teachings as it regards the orienting of a rectangular section shaped rod loosely fitting within the interior circular shape of a tube.

Claim 16, rejected as unpatentable over Romanick in view of Nanni and Vasselli, has been amended to more clearly define the function of the lubricant in the interior of said tube. Romanick discloses a tubular device with a dowel inside that moves up and down the length of the tubular device. This teaches away from the device of Brown (pat. AppII0/685,067) in that the device of Brown shows a flexible tube into which is inserted a rectangular device which is substantially coextensive with the length of said tube and does not move up and down the length of the tube. Vasselli discloses slideable means of different shapes but again these devices slide up and down the length of a tube and not for rotating within the inside of the near round cavity of a tube. Nanni does disclose the use of a lubricant for enhancing the movement of a piston within an elongated tube. Again, this teaches away from the Brown application in that the lubrication in Nanni is to facilitate movement in the longitudinal direction and not rotational movement of a rectangular section rod within a near round cavity of a tube of Brown.

The claims now presented are believed to patentably define applicants invention and accordingly a notice of allowance is solicited.

Respectfully submitted,



Charles L. Schwab
Attorney for Applicant
Registration No. 17,497
NEXSEN PRUET, LLC
Post Office Box 10107
Greenville, SC 29603
Telephone: (864) 370-2211
Facsimile: (864) 282-1177

___ November 2006